

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO.92-084

SITE CLEANUP REQUIREMENTS FOR:

DELUXE CHECK PRINTERS
1551 DELL AVENUE
CITY OF CAMPBELL
SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. Deluxe Check Printers (Deluxe) owns and occupies the property at 1551 Dell Avenue in Campbell in Santa Clara County. This property has been identified as having soil and groundwater pollution which resulted wholly or in part from the discharge of volatile organic chemicals (VOCs) from underground storage tanks and/or appurtenances.
2. The property is approximately five acres in size and includes a large single-story building and a large adjacent surfaced parking area. The building is used for offices, warehousing, and printing operations. Local land use is primarily office and light industrial. Nearby are located a number of percolation (recharge) ponds operated by the Santa Clara Valley Water District (SCVWD) as part of the Camden Percolation System.
3. Deluxe has occupied its present location since 1968. The building was constructed in 1967 or 1968, at which time three steel underground storage tanks for chemical solvents and one concrete underground solution dilution tank were installed at the south side of the building near the property line. The use of all tanks was discontinued in 1981, and they were filled with cement slurry in August of 1983 under a permit issued by the Campbell Fire Department.
4. In 1988-1989 the Board made an investigation pursuant to Assembly Bill 1803, to identify the source or sources of chemicals which have been found in nearby drinking water wells. Municipal water supply wells located in Campbell (First Street wells) were found to be polluted primarily with 1,1,1-TCA (15-30 ppb), low levels of PCE (0.5-1 ppb), dichloro-degradation products, and some trihalomethanes. The First Street wells are located north of groundwater percolation (recharge) ponds in Campbell.
5. As part of the Board investigation, a general area-wide soil gas survey was made in the area upgradient of the First Street wells. The results of the survey did not show the presence of a distinct pollutant plume but did indicate the presence of PCE much above background

concentrations in soil in the vicinity of the out-of-use underground tanks on the 1551 Dell Avenue property; one of the tanks was reported by Deluxe to have contained PCE until 1981-1982.

6. The area investigated by the Board also included two adjacent properties, at 1587 Dell Avenue and 561 Division Street in Campbell (Figure 1). VOC pollution has been detected on both properties, and a potential source of PCE is believed to have existed, and may still exist, on the property at 1587 Dell Avenue, which is considered to be upgradient of the Deluxe property. The property at 1587 Dell Avenue is presently under a Cleanup and Abatement Order issued by the Executive Officer.
7. Deluxe implemented a site specific investigation of the 1551 Dell Avenue property in 1989, and installed a number of groundwater monitoring wells. Results of chemical analyses indicate the presence of VOCs in soil and groundwater, including 1,1,1-trichloroethane (1,1,1-TCA), tetrachloroethene (PCE), trichloroethene (TCE), 1,1,2-trichloroethane (1,1,2-TCA), 1,1-dichloroethene (1,1-DCE), 1,2-dichloroethene (1,2-DCE), 1,1-dichloroethane (1,1-DCA), 1,2-dichloroethane (1,2-DCA), ethylbenzene, toluene, and xylenes.

Deluxe reports that two pollutant plumes may be present: one characterized by the presence of relatively high levels of PCE, the other characterized by a suite of chemicals including 1,1,1-TCA, TCE, PCE, 1,1-DCE, 1,1-DCA and other VOCs.

8. The Deluxe site is located regionally where natural recharge to groundwater reservoirs of the Santa Clara Basin is known to occur. The SCVWD attempts to augment natural recharge by operating a system of man-made percolation (recharge) ponds. The Deluxe site is in a locality which hosts part of the Los Gatos Creek Recharge System, made up of ten ponds and associated ditches, streams and pipelines (Figure 2).
9. The three Camden ponds are situated within 1,000 feet east and northeast of the Deluxe property; the two Oka ponds are immediately southeast of the Camden ponds and the Page ponds are due north of the site. In addition, the Camden recharge ponds are serviced by an unlined siltation basin (Page desiltation pond) located just across Dell Avenue approximately 1,000 feet northeast of the Deluxe site (Figure 2).
10. The Page desiltation pond reportedly has a dramatic effect on the shallow monitoring wells at Deluxe: without recharge from the pond, wells have been dry (the pond remained empty for earthquake repairs from November 1989 to September 27, 1990).
11. The upper water-bearing zone at Deluxe is unconfined, with a total estimated thickness of about 55 to 60 feet. Sands and gravels have a fairly uniform distribution with varying amounts of clay interbeds. Groundwater flow direction appears to be northerly and westerly, but the direction and velocity of groundwater flow varies between drain-and-fill cycles of the Page desiltation pond.

12. Deluxe has submitted a preliminary Remedial Investigation and Feasibility Study (RI/FS) Report to the Board. The objectives of the proposed interim measures are to contain the VOC pollutants onsite (prevent the offsite migration of VOCs), and to remove VOCs from soil and groundwater.
13. Deluxe's plan for interim remedial action includes:
 - a. Soil-vapor extraction.
 - b. Groundwater extraction, and treatment by air-stripping.
 - c. Onsite use of some of the treated groundwater, and disposal of the remainder.
14. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 16, 1991. The Basin Plan contains water quality objectives for South San Francisco Bay and contiguous surface waters and groundwater.
15. The existing and potential beneficial uses of the groundwater underlying and adjacent to the property include:
 - a. Industrial process water supply.
 - b. Industrial service supply.
 - c. Municipal and domestic supply.
 - d. Agricultural supply.
16. The discharger (Deluxe) has caused or permitted, and threatens to cause or permit waste to be discharged or deposited where it is or probably will be discharged to waters of the State and creates or threatens to create a condition of pollution or nuisance.
17. This action is an Order to enforce the laws and regulations administered by the Board. This action is categorically exempt from the provisions of the CEQA pursuant to Section 15321 of the Resources Agency Guidelines.
18. The Board has notified the discharger (Deluxe) and interested agencies and persons of its intent under California Water Code Section 13304 to prescribe Site Cleanup Requirements for the discharge and has provided them with the opportunity for a public hearing and an opportunity to submit their written views and recommendations.
19. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the discharger (Deluxe) shall cleanup and abate the effects described in the above Findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous materials in a manner which will degrade water quality or adversely affect the beneficial uses of waters of the State is prohibited.
2. Further significant migration of pollutants through subsurface transport to waters of the State is prohibited.
3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of pollutants are prohibited.

B. SPECIFICATIONS

1. The storage, handling, treatment or disposal of polluted soil or groundwater shall not create a nuisance as defined in Section 13050 (m) of the California Water Code.
2. The discharger (Deluxe) shall conduct further reporting, site investigation and monitoring activities as needed and as described in this Order. Results of such monitoring activities shall be submitted to the Board. Should monitoring results show evidence of plume migration, additional plume characterization may be required.
3. Final cleanup standards for polluted groundwater shall be in accordance with State Water Resources Control Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California". Numerical standards shall not exceed the drinking water MCL (maximum contaminant level) or State AL (action level), whichever is more stringent, for each identified VOC. If an MCL or AL has not been established for a VOC, the standard shall be established based on the best available information. The discharger (Deluxe) may, based upon site specific information, propose alternative numerical standards for consideration by the Board, as part of a final cleanup plan.
4. The cleanup standard for source-area soils in the unsaturated zone is 1 ppm (part per million) for total VOCs. If it is determined that remediation of soils in the saturated zone is necessary and appropriate, a cleanup standard for this remediation will be established by the Board. Soil cleanup standards may be modified by the Board if the discharger (Deluxe) demonstrates with site specific data that higher concentrations of VOCs in the soil will not threaten the quality of waters of the State or that cleanup to these standards are infeasible and human health and the environment are protected.
5. The discharger (Deluxe) shall optimize, with a goal of 100%, the reclamation or reuse of groundwater extracted as a result of cleanup activities. The discharger (Deluxe) shall not be found in violation of this Order if documented factors beyond the discharger's (Deluxe's) control prevent the discharger (Deluxe) from attaining this goal, provided the discharger (Deluxe) has made a good faith effort to attain this goal.

6. Pursuant to Section 13304 of the Water Code, the discharger is hereby notified that the Regional Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Regional Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. Upon receipt of a billing statement for such costs, the discharger shall reimburse the Regional Board.

C. PROVISIONS

1. The discharger (Deluxe) shall perform all investigation and remedial work in accordance with the requirements of this Order.
2. The discharger (Deluxe) shall submit to the Board acceptable monitoring program reports containing results of work performed according to a program prescribed by the Board's Executive Officer.
3. The discharger (Deluxe) shall comply with all Prohibitions and Specifications of this Order, in accordance with the following time schedule and tasks:

a. INTERIM REMEDIAL ACTIONS

- 1) TASK 1: COMPLETE SITE CHARACTERIZATION WORK. Submit a technical report acceptable to the Executive Officer which describes the vertical and horizontal extent of groundwater and soil pollution, and which includes an estimate of the amount of soil which may require remediation because of VOC pollution. This report shall include a discussion of the potential impact of operation of the local groundwater recharge system on the distribution of VOC pollution in site soil and groundwater, and on alternative remedial measures considered for this site. The report shall also include a discussion of potential vertical conduits from the polluted shallow portions of the aquifer to the deeper sources of drinking-water supply.

If additional work is necessary in order to complete the site characterization, this report shall include a proposal and schedule to accomplish this work.

COMPLETION DATE: October 30, 1992

- 2) TASK 2: GROUNDWATER CONSERVATION. Submit a technical report acceptable to the Executive Officer which documents compliance or intent to comply with Board Resolution No. 88-160, "Regional Board Position on the Disposal of Extracted Groundwater From Groundwater Cleanup Projects".

COMPLETION DATE: September 1, 1992

- 3) TASK 3: GROUNDWATER MONITORING PROGRAM. Submit a technical report acceptable to the Executive Officer which updates a groundwater monitoring program for this site, including approximate dates for conducting sampling events and measuring water levels.

COMPLETION DATE: September 1, 1992

- 4) TASK 4: PROPOSAL FOR GROUNDWATER REMEDIATION. Submit a technical report acceptable to the Executive Officer which proposes interim remedial action for groundwater pollution and includes a schedule for implementation.

COMPLETION DATE: October 30, 1992

- 5) TASK 5: PROPOSAL FOR SOIL REMEDIATION: Submit a report acceptable to the Executive Officer which proposes interim remedial action for soil pollution and includes a schedule for implementation. The reports for Tasks 4 and 5 may be combined and submitted as one document.

COMPLETION DATE: October 30, 1992

- 6) TASK 6: COMPLETE IMPLEMENTATION OF INTERIM REMEDIAL ACTION FOR GROUNDWATER POLLUTION. Submit a technical report acceptable to the Executive Officer which documents the implementation of the IRA proposed in Task 4.

COMPLETION DATE: March 15, 1993

- 7) TASK 7: COMPLETE IMPLEMENTATION OF INTERIM REMEDIAL ACTION FOR SOIL POLLUTION. Submit a technical report acceptable to the Executive Officer which documents the implementation of the IRA proposed in Task 5. The reports for Tasks 6 and 7 may be combined and submitted as one document.

COMPLETION DATE: March 15, 1993

- 8) TASK 8: EVALUATE INTERIM REMEDIAL ACTIONS. Submit a technical report acceptable to the Executive Officer which evaluates the effectiveness of the interim remedial actions which have been implemented. This report should attempt to document any source(s) of pollution which have not previously been identified.

COMPLETION DATE: September 1, 1993

- 9) TASK 9: PROPOSED MODIFICATIONS TO THE INTERIM REMEDIAL ACTIONS. Submit a report acceptable to the Executive Officer which proposes

modifications to the IRA previously implemented, or documents that the implemented actions for soil and groundwater remediation are complete. The reports for Tasks 8 and 9 may be combined and submitted as one document.

COMPLETION DATE: September 1, 1993

- 10) TASK 10: COMPLETE MODIFICATIONS TO INTERIM REMEDIAL ACTIONS. Submit a technical report acceptable to the Executive Officer which documents that any modifications proposed in Task 9, as accepted by the Executive Officer, have been completed by the dischargers and are in effect.

COMPLETION DATE: December 1, 1993

b. FINAL CLEANUP PLAN AND ACTIONS

- 1) TASK 11: PROPOSED FINAL CLEANUP PLAN. Submit a technical report acceptable to the Executive Officer which proposes a final cleanup plan for the site. This report shall contain the results of site investigations, an evaluation of the installed interim remedial actions, a feasibility study evaluating alternative final remedial actions, the recommended actions necessary to achieve final cleanup, and the tasks and time schedule necessary to implement the recommended final remedial actions. The reports for Tasks 10 and 11 may be combined and submitted as one document.

COMPLETION DATE: December 1, 1993

- 2) TASK 12: COMPLETE IMPLEMENTATION OF FINAL CLEANUP PLAN AND ACTIONS. Submit a technical report acceptable to the Executive Officer documenting the implementation of the final cleanup plan and actions as proposed and accepted by the Executive Officer pursuant to Task 10.

COMPLETION DATE: June 1, 1994

c. STATUS REPORT

- 1) TASK 13: STATUS REPORT AND EFFECTIVENESS EVALUATION. Submit a technical report acceptable to the Executive Officer containing the following: (1) results of any additional investigative work needed; (2) an evaluation of the effectiveness of installed final cleanup measures and cleanup costs; (3) additional recommended measures to achieve final cleanup objectives and goals, if necessary; (4) a comparison of previous expected costs with the costs incurred and projected costs necessary to achieve cleanup objectives and goals; (5) the tasks and time schedule necessary to implement any additional final cleanup measures; and (6) recommended measures for reducing Board

oversight. This report shall also describe the reuse of extracted groundwater, evaluate and document the removal and/or cleanup of polluted soil. If safe drinking water levels have not been achieved and are not expected to be achieved through continued groundwater extraction and/or soil cleanup, this report shall also contain an evaluation of the feasibility of achieving drinking water quality with the implemented cleanup measures and a proposal for alternative measures if required to achieve drinking water quality.

COMPLETION DATE: September 1, 1997

4. The submittal of technical reports evaluating proposed interim and final cleanup measures will include a projection of the cost, effectiveness, benefits and impact on public health, welfare and environment of each alternative measure. A remedial investigation and feasibility study shall consider guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300); CERCLA guidance documents with reference to Remedial Investigations, feasibility Studies and Removal Actions; and the State Water Resources Control Board's Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California".
5. Any proposal for the discharge of extracted groundwater included in a technical report required by this Order must initially consider the feasibility of reclamation or discharge to a publicly owned treatment works (POTW), as specified in Board Resolution No. 88-160. If it can be demonstrated that reclamation or discharge to a POTW is technically and economically infeasible, a proposal for discharge to surface water shall be considered. Such proposal for discharge to surface water shall include a completed application for an NPDES permit.
6. If the discharger (Deluxe) is delayed, interrupted or prevented from meeting one or more of the completion dates specified in this Order, the discharger (Deluxe) shall promptly notify the Executive Officer. In the event of such delays, the Board may consider modification of the task completion dates established in this Order.
7. Technical reports on compliance with the Prohibitions, Specifications, and Provisions of this Order shall be submitted quarterly beginning with the report for the third quarter (July through September) of calendar year 1992, due by November 15, 1992. Each of these shall report on the progress of the remedial action program during the period covered by the report, and shall include but not be limited to, updated water table/piezometer surface maps for all affected water-bearing zones, and appropriately scaled and detailed base maps showing the locations of all monitoring wells, extraction wells, and piezometers, and identifying adjacent facilities and structures. Geological maps and/or cross-sections describing the hydrogeological setting of the site shall be provided in the first progress/status report for each calendar year that the Order is in effect. Each report shall include updated isoconcentration maps of VOCs in groundwater, including but not limited to 1,1,1-TCA and PCE. The report shall also include tabulations of water-level and water-quality data, and interpretations and discussions of data obtained.

8. In addition to the report required in Provision 7 the discharger (Deluxe) shall submit an annual technical report beginning with the report for calendar year 1992, due by February 15, 1993. This report shall include, but need not be limited to, an evaluation of the progress of cleanup measures and the feasibility of meeting groundwater and soil cleanup standards established in this Order. If the discharger (Deluxe) determines that it is not feasible to meet the cleanup standards established by this Order, the report shall also contain an evaluation of maximum cleanup standards that could be achieved. If the discharger (Deluxe) determines that it is not feasible to meet soil cleanup standards, the report shall evaluate the potential for chemicals in soils to threaten the quality of the waters of the State and shall evaluate whether public health and the environment are protected. The report required in Provision 7 may be combined with this report when due dates coincide.
9. All hydrogeological plans, specifications, reports and documents shall be signed by or stamped with the seal of a registered geologist, engineering geologist or professional engineer.
10. All samples shall be analyzed by State certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control records for Board review.
11. The discharger (Deluxe) shall maintain in good working order, and operate as efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.
12. Copies of all correspondence, reports and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of this Order shall be provided to the following agencies:
 - a. Santa Clara Valley Water District
 - b. Santa Clara County Health Department
 - c. City of Campbell
 - d. State Department of Health Services/TSCD

The Executive Officer shall receive one complete copy of all correspondence, reports and documents pertaining to compliance with the Prohibitions, Specifications, and Provisions of the Order, and may require additional copies be provided to the U.S. Environmental Protection Agency, Region IX, and to a local repository for public use.

13. The discharger (Deluxe) shall permit the Board or its authorized representatives, in accordance with Section 13267 (c) of the California Water Code:
 - a. Entry upon discharger's (Deluxe's) premises in which any pollution sources exist, or may potentially exist, or in which any required records are kept, which are relevant to this Order.

- b. Access to copy any records required to be kept under the terms and conditions of this Order.
 - c. Inspection of any monitoring equipment or methodology implemented in response to this Order.
 - d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the discharger (Deluxe).
14. The discharger (Deluxe) shall file a report on any changes in site occupancy and ownership associated with the facility described in this Order.
15. If any hazardous substance is discharged in or on any waters of the State, or discharged and deposited where it is, or probably will be discharged in or on any waters of the State, the discharger (Deluxe) shall report such discharge to this Board, at (510) 464-1255 on weekdays during office hours from 8 A.M. to 5 P.M., and to the Office of Emergency Services at (800) 852-7550 during non-office hours. A written report shall be filed with the Board within five (5) working days and shall contain information relative to: the nature of the waste or pollutant, quantity involved, duration of incident, cause of spill, Spill Prevention, Control and Countermeasure Plan (SPCC) in effect, if any, estimated size of affected area, nature of effects, corrective measures that have been taken or planned, and a schedule of these activities, and persons, notified.
16. The Board will review this Order periodically and may revise the requirements when necessary.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on July 15, 1992.



Steven R. Ritchie
Executive Officer

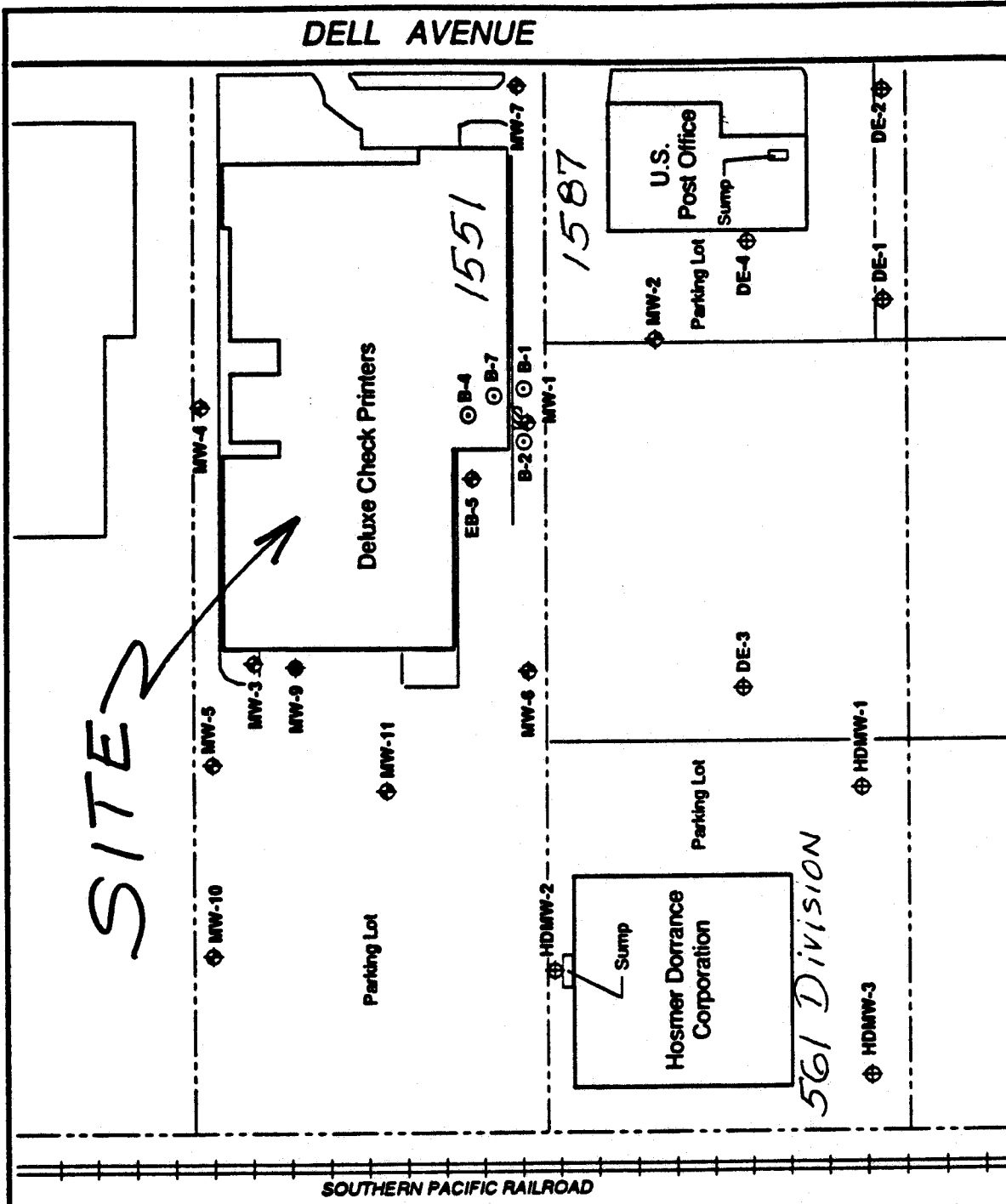
LEGEND

- PROPERTY LINE (Approximate location)
- UNDERGROUND STORAGE TANK AREA (Abandoned; approximate location)
- ◆ DELUXE MONITORING WELL
- ◆ DELUXE DEEP MONITORING WELL
- SOIL BORING
- ◆ MONITORING WELL (On adjacent site; DE = Delta Environmental [Post Office Property]; MD = Hosmer Dorrance)

- NOTES:
1. Well and soil boring locations were surveyed by Kier and Wright, September 24, 1988.
 2. Delta Environmental and Hosmer Dorrance wells are approximately located.



BASE MAP:
Pacific Aerial Survey, File Negative No.
A12670-10-11, Flown June 20, 1988.
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MONITORING WELL AND SOIL BORING LOCATIONS

DELUXE CHECK PRINTERS
1551 DELL AVENUE
CAMPBELL, CALIFORNIA

PROJECT NUMBER 10-1972-04

KLEINFELDER

DRAFTED BY: L. Sue DATE: 3-12-92
CHECKED BY: J. Romie DATE: 4-14-92

FIGURE 1



SOURCE:
Santa Clara Valley Water District, District Groundwater
Recharge Facilities, December 1977.



KLEINFELDER

PROJECT NO. 10-1972-04

LOS GATOS RECHARGE SYSTEM -
AREA MAP
DELUXE CHECK PRINTERS
1551 DELL AVENUE
CAMPBELL, CALIFORNIA

FIGURE
2